

RADIO TRANSCEIVER ON A CHIP

ABSTRACT OF THE DISCLOSURE

An entire radio transceiver can be completely integrated into one IC chip. In order to integrate the IF filters on the chip, a heterodyne architecture with a low IF is used. 5 A single, directly modulated VCO is used for both up-conversion during transmission, and down-conversion during reception. Bond-wires are used as resonators in the oscillator tank for the VCO. A TDD scheme is used in the air 10 interface to eliminate cross-talk or leakage. A Gaussian-shaped binary FSK modulation scheme is used to provide a number of other implementation advantages.